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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,336	10/10/2000	Tetsuyuki Kaneko	040256/0120	2188

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EXAMINER

PATEL, ISHWARBHAI B

ART UNIT PAPER NUMBER

2827

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

Applicant(s)

09/684,336

KANEKO ET AL.

Examiner

Art Unit

Ishwar (I. B.) Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on IDS filed on September 18, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) : _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Allowable Subject Matter

1. Applicant is advised that the Notice of Allowance mailed on September 11, 2002 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sukeyuki et al., Japanese Patent Application Publication Number 04094014 A, submitted by the applicant.

Regarding claim 1, Sukeyuki discloses a superconducting wire comprising:

an oxide superconducting material (ceramic superconductor 1 with Bi_2O_3 , figure 1, page 3, column 2, line 25-30);

a metallic covering material made of metal, for covering a surface of said oxide superconducting material; and ceramic material buried substantially only in an outer surface of said metallic covering material and substantially not in a core of said metallic covering material (reinforcement layer 3 made by dispersing a particle from, a short fiber form or a long fiber form of ceramic such as SiC , TiC , ZrC , ZrO_2 , Al_2O_3 and MgO in Ag matrix).

Regarding claim 2, Sukeyuki further discloses ceramic material in the form of fibers as applied to claim 1 above.

Regarding claims 3 and 4, Sukeyuki further discloses said ceramic materials comprise oxides, as claimed in claim 3 and one or more kinds of materials selected from the group consisting of alumina, magnesia and Zirconia, as claimed in claim 4, (page 2, column 2, bottom portion).

Regarding claim 5, Sukeyuki further discloses said oxide-superconducting material comprises a bismuth based superconductor as applied to claim 1 above.

Regarding claim 6, Sukeyuki further discloses the material of said metallic covering material comprises silver as applied to claim 1 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koizumi Misao, Japanese Patent application Publication Number 01134809 A, submitted by the applicant.

Regarding claim 1, Misao discloses a superconducting wire comprising:

an oxide superconducting material (oxide superconductor 2, as shown in figure);

a metallic covering material made of metal, for covering a surface of said oxide superconducting material; and ceramic material buried in an outer surface of said metallic covering material (complex metal layer 3a-3b with ceramic fiber and steel wire and silver as base material).

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Misao fails to disclose explicitly the ceramic material is substantially only in outer surface of said metallic covering.

However, Misao discloses the carbon fiber 4, as shown in figure, in the outer layer of complex metal layer, and it will be obvious to one having ordinary skill in the art to construe the inorganic fiber material around the same carbon fiber layer on the outer layer for reinforcing the complex metal layer.

Regarding claim 2, Misao further discloses ceramic material in the form of fibers, as applied to claim 1 above.

Regarding claims 3 and 4, Misao further discloses said ceramic materials comprise oxides, as claimed in claim 3 and one or more kinds of materials selected from the group consisting of alumina, magnesia and Zirconia, as claimed in claim 4, page 3, 15-25.

Regarding claim 5, though Misao does not disclose said superconducting material comprises a bismuth based superconductor, bismuth based superconductors are well known in the art and used to increase the current capacity and to increase the required operating temperature.

A person of ordinary skill in the art will use the known material in the art for getting the desired current capacity and operating temperature of the superconductor for the specific application.



Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the superconductor of Misao with bismuth based superconductor, in order to have the desired current capacity and operating temperature of the superconductor for the specific application

Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.


Regarding claim 6, Misao further discloses the material of said metallic covering material comprises silver as applied to claim 1 above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (703) 305 2617. The examiner can normally be reached on M-F (8:30 - 5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703) 308 1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305 3900.

ibp


KAMAND CUNEO
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